found only in the rocky mountains and their neighborhood. I first met with this bird above the three forks of the Missouri and saw them on the heights of the Rocky Mountains but never before had an opportunity of examining them closely, the small *corvus* described at Fort Clatsop is a different species, [= *Perisoreus*] though until now I had taken it to be the same, this is much larger and has a loud squawling note something like the mewing of a cat." A good description follows.

As Alexander Wilson described these birds from specimens brought home by the expedition it follows that the locality where the specimens were shot becomes the type locality not that at which the species were first seen, as given in the A. O. U. Check-List.— WITMER STONE, *Acad. Nat. Sciences, Philadelphia.*

RECENT LITERATURE.

Levick's 'Antarctic Penguins.'[1] — Since the return of the various Antarctic expeditions of the last few years the general public, through lectures, motion pictures and publications, has come to have a better knowledge of the life history of Penguins, than most of the best informed ornithologists possessed a decade ago. The life history of these curious birds is well worthy of the attention it has received and cannot help but fascinate all who are interested in the study of wild life. Dr. G. Murray Levick who accompanied Capt. Scott on his ill-fated expedition has presented the story of the Penguins in a most attractive way in the little volume before us, based on his experiences with the Adelie Penguins (*Pygoscelis adeliæ*) at Cape Adare. The book is well written, well printed and illustrated by 74 admirable half-tones from photographs.

What corresponds to the 'spring' migration of the Penguins began on October 13 when the first arrival from the north reached the breeding ground, and in the course of a week thousands upon thousands of the curious birds had landed and waddled across the ice and snow to the rookery many of them ascending a thousand feet to the highest part of Cape Adare.

The Adelie Penguin builds a nest of pebbles upon which the two eggs are laid and incubated alternately by the parent birds. Until this time neither males or females leave the rookery and consequently get no food though the males eat snow from adjacent drifts. The fasting period lasts 27 days or more, and afterwards there is a continuous stream of dirty incubating

[1] Antarctic Penguins. A Study of their Social Habits. By Dr. G. Murray Levick, R. N., Zoologist to the British Antarctic Expedition (1910–1913). New York: McBride, Nast & Company, 1914. 8vo, pp. 1–140, figs. 1–74. $1.50 net.

birds waddling down to the water, nearly half a mile distant, and fresh, clean birds coming back from their bathing and feeding to take their turns on the nests. When the young are hatched the parents have the double task of feeding themselves, and carrying back food enough for their rapidly growing chicks, and to quote Dr. Levick " so distended were their stomachs that they had to lean backward as they walked to counterbalance their bulging bellies." The young of course are fed by regurgitation directly from the stomach of the parent. Dr. Levick presents most interesting accounts of the mating, fighting, stealing of building material and other activities of the rookery as well as the actions of the birds in the water, their diving and leaping in and out onto the ice, and their play on the ice cliffs and floes. The birds showed no fear of man and one could walk through the rookery at pleasure.

The student of animal behavior will find much interesting material in Dr. Levick's book and many interesting statements are accompanied by most convincing photographs of the birds going through their performances. Probably no birds offer such opportunities for the study of nesting communities and of the peculiar habits that have arisen from the close association of such multitudes of individuals.

An appendix describes the Skuas (*Megalestris maccormicki*), and their habits — those robbers of the rookeries who depend largely for food upon the eggs and young which an inadvertent parent Penguin may leave for a moment unguarded. There is also a short account of the Emperor Penguin (*Aptenodytes forsteri*).

Altogether Dr. Levick's book is unique, and will appeal to all ornithologists,— whether their specialty be, habits, behavior, oölogy or photography — as well as to the public at large for whom these strange, erect, man-like little birds have a strange fascination.— W. S.

Miller on Ptilosis, with Special Reference to the Feathering of the Wing.[1] — Mr. Miller is doing excellent work on the structure of birds with regard to their systematic relationship. We shall need much additional data before a satisfactory classification shall be drawn up and any facts on comparative structure are welcome. In the present paper he considers the ptilosis of the wing in various birds which have been received in the flesh from the New York Zoölogical Park. Many points of interest are brought out which contradict current statements, as for instance the presence of an aftershaft in some parts of the plumage of the Osprey, the absence of which was considered a subfamily character, and the absence of the eleventh primary in the Pigeons, a group said by Gadow to possess eleven primaries. In commenting upon relationships Mr. Miller also calls

[1] Notes on Ptilosis with Special Reference to the Feathering of the Wing. By W. DeW. Miller. Bull. Amer. Mus. Nat. Hist., XXXIV, Art. VI, pp. 129–140. March 19, 1915.